

**Listing of the Claims:**

The following is a complete listing of all the claims in the application, with an indication of the status of each:

- 1        1 (Original). A surface treatment apparatus comprising:
  - 2                a sheet heating unit which heats a sheet having at least a base, a
  - 3                thermoplastic resin layer, and an image recording layer on the base;
  - 4                a contact member for transferring a surface quality thereof to a
  - 5                surface of the image recording layer and an interface of the thermoplastic
  - 6                resin layer facing the image recording layer of the sheet; and
  - 7                a sheet cooling unit which cools the sheet while in contact with the
  - 8                contact member.
  
- 1        2 (Original). A surface treatment apparatus according to Claim 1, wherein
  - 2                the apparatus comprises:
    - 3                a plurality of contact members having different surface qualities;
    - 4                and
    - 5                a contact member selecting unit which selects a contact member
    - 6                having a desired surface quality from the plurality of contact members
    - 7                having different surface qualities.
  
- 1        3 (Original). A surface treatment apparatus according to Claim 2, wherein
  - 2                the contact member is a member selected from a roller, an endless belt, and
  - 3                a texture sheet.
  
- 1        4 (Original). A surface treatment apparatus according to Claim 2, wherein
  - 2                a surface quality of the contact member is varied so that one of a gloss
  - 3                treatment, a matt treatment, and an embossed treatment is given to the
  - 4                sheet.
  
- 1        5 (Original). A surface treatment apparatus according to Claim 2,
  - 2                comprising a user information providing unit for providing user

3 information containing the contact member surface quality data.

1 6 (Original). A surface treatment apparatus according to Claim 5, wherein,  
2 in the contact member selecting unit, a desired surface quality is selected  
3 based on user information provided by the user information providing unit.

1 7 (Withdrawn). A surface treatment apparatus according to Claim 1,  
2 further comprising a treatment control unit which controls treatment  
3 conditions of at least one of the sheet heating unit and the sheet cooling  
4 unit.

1 8 (Withdrawn). A surface treatment apparatus according to Claim 7,  
2 wherein the treatment control unit comprises:  
3 a magazine ID identification unit which identifies a magazine ID of a  
4 magazine housing the sheet; and  
5 a treatment conditions selecting unit which selects a treatment condition  
6 corresponding to the magazine ID identified by the magazine ID  
7 identification unit.

1 9 (Withdrawn). A surface treatment apparatus according to Claim 8,  
2 wherein the treatment condition selecting unit selects treatment conditions  
3 from among plural treatment modes comprising at least one selected from  
4 a heating temperature in the sheet heating unit, a pressure force, a heating  
5 time, and a pressurizing time, a cooling temperature in the sheet cooling  
6 unit, and a cooling time.

1 10 (Withdrawn). A surface treatment apparatus according to Claim 9,  
2 wherein the magazine ID is assigned for each sheet type.

1 11 (Withdrawn). A surface treatment apparatus according to Claim 7,  
2 wherein the treatment control unit comprises an operation screen display  
3 unit which displays a screen permitting selection of treatment conditions.

1        12 (Withdrawn). A surface treatment apparatus according to Claim 11,  
2        wherein the operation screen display unit displays a screen which permits  
3        selection of a quality comprising at least one of gloss and matt as the  
4        quality after surface treatment of the sheet.

1        13 (Withdrawn). A surface treatment apparatus according to Claim 11,  
2        wherein the operation screen display unit displays a screen which permits  
3        selection of a sheet type.

1        14 (Withdrawn). A surface treatment apparatus according to Claim 1,  
2        wherein the sheet heating unit heats the sheet in contact with the contact  
3        member.

1        15 (Withdrawn). A surface treatment apparatus according to Claim 14,  
2        wherein the sheet heating unit heats to a temperature equal to or higher  
3        than the softening point of a thermoplastic resin in the thermoplastic resin  
4        layer.

1        16 (Withdrawn). A surface treatment apparatus according to Claim 15,  
2        wherein the sheet heating unit heats the sheet to a temperature of from  
3        80 °C to 120 °C.

1        17 (Withdrawn). A surface treatment apparatus according to Claim 15,  
2        wherein the contact member pressures the sheet to a pressure of from  
3        7 kgf/cm<sup>2</sup> to 20 kgf/cm<sup>2</sup>.

1        18 (Withdrawn). A surface treatment apparatus according to Claim 15,  
2        wherein the sheet cooling unit cools to a temperature less than the  
3        softening point of a thermoplastic resin in the thermoplastic resin layer.

1        19 (Withdrawn). A surface treatment apparatus according to Claim 15,  
2        wherein the sheet heating unit comprises:  
3                the endless belt; and  
4                a pair of heat rollers disposed so as to place the endless belt in  
5        pressure contact from its inner side and outer side.

1        20 (Withdrawn). A surface treatment apparatus according to Claim 15,  
2        wherein the sheet cooling unit is disposed between the pair of heat rollers  
3        and the rotation roller suspending the endless belt free to rotate together  
4        with the pair of heat rollers, and in the vicinity of the endless belt.

1        21 (Withdrawn). A surface treatment apparatus according to Claim 20,  
2        wherein the treatment control unit adjusts a cooling time due to the sheet  
3        cooling unit by varying a distance between the pair of heat rollers and the  
4        rotation roller, so as to vary the time for which the sheet and endless belt  
5        are in contact.

1        22 (Withdrawn). A surface treatment apparatus according to Claim 21,  
2        wherein the distance between the pair of heat rollers is varied by displacing  
3        the rotation roller and a suspension roller which suspends the endless belt  
4        free to rotate together with the rotation roller.

1        23 (Withdrawn). A surface treatment apparatus according to Claim 20,  
2        wherein the sheet cooling unit cools the sheet by blowing cold air.

1        24 (Withdrawn). A surface treatment apparatus according to Claim 20,  
2        wherein the treatment control unit adjusts a cooling temperature due to the  
3        sheet cooling unit by varying a blowing rate of the cold air produced by the  
4        sheet cooling unit.

1        25 (Withdrawn). A surface treatment apparatus according to Claim 15,  
2        wherein the sheet heating unit comprises:

3 an inner heat roller disposed inside the endless belt which suspends  
4 the endless belt together with a rotation roller disposed on the inner side of  
5 the endless belt so that the belt is free to rotate; and

6 an outer heat roller disposed outside the endless belt which grips  
7 the endless belt together with the inner heat roller so that the belt is free to  
8 rotate.

1 26 (Withdrawn). A surface treatment apparatus according to Claim 1,  
2 wherein the sheet heating unit comprises a sheet preheating part which  
3 preheats the sheet and the apparatus transfers a surface quality of the  
4 contact member to the sheet heated by the sheet preheating part.

1 27 (Withdrawn). A surface treatment apparatus according to Claim 26,  
2 wherein the sheet preheating part heats the sheet while the sheet treatment  
3 surface is in contact with the endless belt.

1 28 (Withdrawn). A surface treatment apparatus according to Claim 27,  
2 wherein the sheet preheating part is disposed on the roller surface of the  
3 inner heat roller via the endless belt.

1 29 (Withdrawn). A surface treatment apparatus according to Claim 27,  
2 wherein the sheet preheating part is disposed on the rotating endless belt,  
3 and further upstream than the inner heat roller and the outer heat roller.

1 30 (Withdrawn). A surface treatment apparatus according to Claim 27,  
2 wherein the sheet preheating part comprises a transport unit which  
3 transports the sheet while in contact with the endless belt.

1 31 (Withdrawn). A surface treatment apparatus according to Claim 30,  
2 wherein the transport unit comprises a heating mechanism.

1       32 (Withdrawn). A surface treatment apparatus according to Claim 31,  
2       wherein the transport unit comprises:  
3               a contact belt which brings the sheet into contact with the endless  
4       belt; and  
5               rotation rollers disposed on an inner side of the contact belt which  
6       suspend the belt such that it is free to rotate.

1       33 (Withdrawn). A surface treatment apparatus according to Claim 32,  
2       wherein one of the rotation rollers is the outer heat roller.

1       34 (Withdrawn). An image recording apparatus comprising:  
2       an image recording unit which forms an image on a sheet; and  
3       a surface treatment unit which performs surface treatment on the sheet,  
4       wherein the surface treatment unit is a surface treatment apparatus  
5       comprising:  
6               a sheet heating unit which heats a sheet having at least a base, a  
7       thermoplastic resin layer, and an image recording layer on the base;  
8               a contact member; and  
9               a sheet cooling unit which cools the sheet while in contact with the  
10      contact member,  
11              wherein the apparatus transfers a surface quality of the contact  
12      member to a surface of the image recording layer and an interface of the  
13      thermoplastic resin layer facing the image recording layer of the sheet.

1       35 (Withdrawn). An image recording apparatus according to Claim 34,  
2       wherein the image recording unit records the image on the sheet  
3       whereupon surface treatment has been performed by the surface treatment  
4       unit.

1       36 (Withdrawn). An image recording apparatus according to Claim 34,  
2       wherein the surface treatment unit performs surface treatment on the sheet  
3       whereupon the image has been formed by the image forming unit.